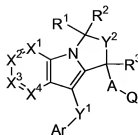


**In the Claims**

1. (Twice Amended) A compound having the formula I



I

and pharmaceutically acceptable salts and hydrates thereof, wherein:

A is selected from C<sub>1-3</sub>alkyl optionally substituted with one to four halogen atoms, O(CH<sub>2</sub>)<sub>1-2</sub>, and S(CH<sub>2</sub>)<sub>1-2</sub>;

Ar is ~~aryl or heteroaryl each optionally substituted with one to four groups independently selected from R<sup>8</sup>~~ selected from phenyl, 2-, 3-, 4-chlorophenyl, 2-, 3-, 4-fluorophenyl, 3,4-dichlorophenyl, 2,3-dichlorophenyl, 2,4-dichlorophenyl, 2,5-dichlorophenyl, 2,6-dichlorophenyl, 3,5-dichlorophenyl, 3-chloro-4-fluorophenyl, 2-chloro-4-fluorophenyl, 4-chloro-2-fluorophenyl, 2-cyanophenyl, 4-methylphenyl, 4-isopropylphenyl, 4-trifluoromethylphenyl, biphenyl, naphthyl, 3-methoxyphenyl, 3-carboxyphenyl, 2-carboxamidophenyl, 4-methoxyphenyl, 3-phenoxyphenyl, 4-(4-pyridyl)phenyl, 4-methylsulfonylphenyl, 3-dimethylaminophenyl, 5-tetrazolyl, 1-methyl-5-tetrazolyl, 2-methyl-5-tetrazolyl, 2-benzothienyl, 2-benzofuranyl, 2-indolyl, 2-quinolinyl, 7-quinolinyl, 2-benzothiazolyl, 2-benzimidazolyl, 1-benzotriazolyl, 2-furanyl, 3-furanyl, 2-imidazolyl, 5-imidazolyl, 5-isoxazolyl, 4-isoxazolyl, 4-isothiazolyl, 1,2,4-oxadiazol-5-yl, 2-oxazolyl, 4-oxazolyl, 4-pyrazolyl, 5-pyrazolyl, 2-pyridyl, 3-pyridyl, 2-pyrazinyl, 5-pyrimidinyl, 2-pyrrolyl, 4-thiazolyl, 1,2,4-thiadiazol-3-yl, 1,2,5-thiadiazol-4-yl, 1,2,3-thiadiazol-4-yl, 1,2,5-oxadiazol-4-yl, 1,2,3-oxadiazol-4-yl, 1,2,4-triazol-5-yl, 1,2,3-triazol-4-yl, 3-thienyl, 1,2,4-triazol-5-yl, pyrrolopyridine, furo[3,2-b]pyridin-2-yl, thieno[2,3-b]pyridin-2-yl, 5(H)-2-oxo-4-furanyl, 5(H)-2-oxo-5-furanyl, (1H,4H)-5-oxo-1,2,4-triazol-3-yl, 4-oxo-2-benzopyranyl;

Q is COOH,

one of X<sup>1</sup>, X<sup>2</sup>, or X<sup>3</sup> or X<sup>4</sup> is nitrogen and the others are independently selected from CH and C-R<sup>8</sup> and R<sup>8</sup> is selected from 1) C<sub>1-6</sub>alkyl optionally substituted with one to eight groups independently selected from aryl, heteroaryl, halogen, NR<sup>a</sup>R<sup>b</sup>, C(O)R<sup>a</sup>, C(OR<sup>a</sup>)R<sup>a</sup>R<sup>b</sup>, SR<sup>a</sup> and OR<sup>a</sup>, wherein aryl, heteroaryl and alkyl are each optionally substituted with one to six groups independently selected from halogen, CF<sub>3</sub>, and COOH; or

2)  $S(O)_n C_{1-6} alkyl$ , wherein alkyl is optionally substituted with one to six substituents

selected from halogen, aryl, heteroaryl, OH, and  $OC(O)R^a$ ;

$X^4$  is CH or C- $R^g$ , where  $R^g$  is selected from 1)  $C_{1-6} alkyl$  optionally substituted with  $OR^a$  or 2)  $S(O)_n C_{1-6} alkyl$ ;

$Y^1$  is S;

$Y^2$  is selected from  $(CR^d R^e)_m$  and  $CR^d=CR^e$ ;

$R^1$  is selected from H, CN,  $OR^a$ ,  $S(O)_n C_{1-6} alkyl$  and  $C_{1-6} alkyl$  optionally substituted with one to six groups independently selected from halogen,  $OR^a$  and  $S(O)_n C_{1-6} alkyl$ ;

$R^2$  is selected from H and  $C_{1-6} alkyl$  optionally substituted with one to six halogen; or

$R^3$  is selected from H and  $C_{1-6} alkyl$  optionally substituted with one to six groups

independently selected from  $OR^a$  and halogen;

$R^a$  and  $R^b$  are independently selected from H,  $C_{1-10} alkyl$ ,  $C_{2-10} alkenyl$ ,  $C_{2-10} alkynyl$ , Cy and Cy  $C_{1-10} alkyl$ , wherein said alkyl, alkenyl, alkynyl and Cy are optionally substituted with one to six substituents independently selected from halogen, amino, carboxy,  $C_{1-4} alkyl$ ,  $C_{1-4} alkoxy$ , aryl, heteroaryl, aryl  $C_{1-4} alkyl$ , hydroxy,  $CF_3$ ,  $OC(O)C_{1-4} alkyl$ ,  $OC(O)NR^i R^j$ , and aryloxy; or

$R^b$  is selected from  $C_{1-6} alkyl$  optionally substituted with one to six halogen, aryl and heteroaryl, wherein said aryl and heteroaryl are optionally substituted with one to three groups selected from halogen,  $OC_{1-6} alkyl$ , O halo  $C_{1-6} alkyl$ ,  $C_{1-6} alkyl$  and halo  $C_{1-6} alkyl$ ;

$R^d$  and  $R^e$  are independently H, halogen, aryl, heteroaryl,  $C_{1-6} alkyl$  or halo  $C_{1-6} alkyl$ ;

$R^f$  is selected from H,  $C_{1-6} alkyl$ , halo  $C_{1-6} alkyl$ , Cy,  $C(O)C_{1-6} alkyl$ ,  $C(O)halo C_{1-6} alkyl$ , and  $C(O)Cy$ ;

$R^g$  is selected from

(1) — halogen;

(2) — CN;

(3) —  $C_{1-6} alkyl$  optionally substituted with one to eight groups independently selected from aryl, heteroaryl, halogen,  $NR^a R^b$ ,  $C(O)R^a$ ,  $C(OR^a)R^a R^b$ ,  $SR^a$  and  $OR^a$ , wherein aryl, heteroaryl and alkyl are each optionally substituted with one to six groups independently selected from halogen,  $CF_3$ , and  $COOH$ ;

(4) —  $C_{2-6} alkenyl$  optionally substituted with one to six groups independently selected from halogen and  $OR^a$ ;

(5) — Cy

(6) —  $C(O)R^a$ ;

(7) —  $C(O)OR^a$ ;

- (8) —CONR<sup>a</sup>R<sup>b</sup>;
- (9) —OC(=O)NR<sup>a</sup>R<sup>b</sup>;
- (10) —OC(=O)C<sub>1-6</sub>alkyl, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH and OC(=O)R<sup>a</sup>;
- (11) —O-Cy;
- (12) —S(O)<sub>n</sub>C<sub>1-6</sub>alkyl, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH, and OC(=O)R<sup>a</sup>;
- (13) —S(O)<sub>n</sub>-Cy;
- (14) —NR<sup>a</sup>S(O)<sub>n</sub>R<sup>b</sup>;
- (15) —NR<sup>a</sup>R<sup>b</sup>;
- (16) —NR<sup>a</sup>C(O)R<sup>b</sup>;
- (17) —NR<sup>a</sup>C(O)OR<sup>b</sup>;
- (18) —NR<sup>a</sup>C(O)NR<sup>a</sup>R<sup>b</sup>;
- (19) —S(O)<sub>n</sub>NR<sup>a</sup>R<sup>b</sup>;
- (20) —NO<sub>2</sub>;
- (21) —C<sub>5-8</sub>cycloalkenyl;

wherein Cy is optionally substituted with one to eight groups independently selected from halogen, C(O)R<sup>a</sup>, OR<sup>a</sup>, C<sub>1-3</sub>alkyl, aryl, heteroaryl and CF<sub>3</sub>;

R<sup>i</sup> and R<sup>j</sup> are independently selected from hydrogen, C<sub>1-10</sub>alkyl, Cy and Cy-C<sub>1-10</sub>alkyl; or R<sup>i</sup> and R<sup>j</sup> together with the nitrogen atom to which they are attached form a ring of 5 to 7 members containing 0-2 additional heteroatoms independently selected from oxygen, sulfur and N-R<sup>f</sup>;

Cy is selected from heterocyclyl, aryl, and heteroaryl;

m is 1 or 2; and

n is 0, 1 or 2.

2. (Original) A compound of Claim 1 wherein A-Q is CH<sub>2</sub>CO<sub>2</sub>H.

3. (Cancel)

4. (Previously Canceled)

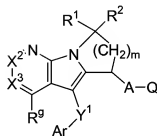
5. (Previously Canceled)

6. (Original) A compound of Claim 1 wherein one of X<sup>1</sup>, X<sup>2</sup> and X<sup>3</sup> is nitrogen and the others are CH, and X<sup>4</sup> is C-S(O)<sub>n</sub>-C<sub>1-6</sub>alkyl or C-C<sub>1-6</sub>alkyl optionally substituted with OR<sup>a</sup>.

7. (Cancel)

8. (Original) A compound of Claim 1 wherein Y<sup>2</sup> is selected from CH<sub>2</sub> and CH<sub>2</sub>CH<sub>2</sub>.

9. (Original) A compound of Claim 1 represented by the formula Ia:



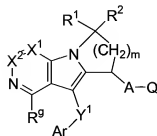
Ia

wherein X<sup>2</sup> and X<sup>3</sup> are independently CH or C-Rg, A, Ar, Q, Y<sup>1</sup>, R<sup>1</sup>, R<sup>2</sup>, m and Rg are as defined in Claim 1.

10. (Original) A compound of Claim 9 wherein X<sup>2</sup> and X<sup>3</sup> are each CH, R<sup>1</sup> and R<sup>2</sup> are each H, and A-Q is CH<sub>2</sub>CO<sub>2</sub>H.

11. (Original) A compound of Claim 9 wherein Y<sup>1</sup>-Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C<sub>1-6</sub> alkyl and trifluoromethyl.

12. (Original) A compound of Claim 1 represented by the formula Ib:



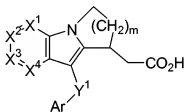
Ib

wherein  $X^1$  and  $X^2$  are independently CH or C-Rg, A, Ar, Q,  $Y^1$ ,  $R^1$ ,  $R^2$ , m and Rg are as defined in Claim 1.

13. (Original) A compound of Claim 12 wherein  $X^1$  and  $X^2$  are each CH,  $R^1$  and  $R^2$  are each H, and A-Q is  $CH_2CO_2H$ .

14. (Original) A compound of Claim 13 wherein  $Y^1$ -Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen,  $C_{1-6}$  alkyl and trifluoromethyl.

15. (Original) A compound of Claim 1 represented by the formula Ic:



Ic

wherein one of  $X^1$ ,  $X^2$  and  $X^3$  is N and the others are each CH,  $X^4$  is CRg, m is 1 or 2, and Ar,  $Y^1$  and m are as defined in Claim 1.

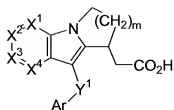
16. (Original) A compound of Claim 15 wherein Ar is phenyl optionally substituted with 1 or 2 groups independently selected from halogen,  $C_{1-3}$ alkyl and trifluoromethyl.

17. (Previously Canceled)

18. (Original) A compound of Claim 15 wherein  $X^4$  is selected from  $C-S(O)_n$ - $C_{1-6}$ alkyl and C- $C_{1-6}$ alkyl optionally substituted with OR<sup>a</sup>.

19. (Previously Amended) A compound of Claim 15 wherein  $Y^1$ -Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen,  $C_{1-6}$ alkyl and trifluoromethyl;  $X^1$  and  $X^2$  are each CH,  $X^3$  is N, m is 1 or 2, and  $X^4$  is  $-SO_2C_{1-6}$ alkyl or C- $C_{1-6}$ alkyl.

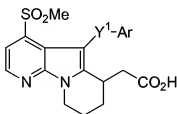
20. (Previously Amended) A compound of Claim 1 selected from:



X <sup>1</sup>	X <sup>2</sup>	X <sup>3</sup>	X <sup>4</sup>	Ar	Y <sup>1</sup>	m
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
N	CH	CH	C(SCH <sub>3</sub> )	4-Cl-Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	3,4-diCl-Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Br-Ph	S	2
CH	CH	N	C(SO <sub>2</sub> CH <sub>3</sub> )	3,4-diCl-Ph	S	1
CH	CH	N	C(SO <sub>2</sub> CH <sub>3</sub> )	3,4-diCl-Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	4-CF <sub>3</sub> -Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	2-Cl-4-F-Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	2-naphthyl	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	2,3-diCl-Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	4-CH <sub>3</sub> -Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	2,4-diCl-Ph	S	2
CH	N	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
CH	CH	N	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
N	C(CH <sub>3</sub> )	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
N	CH	C(CH <sub>3</sub> )	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
CH	C(CH <sub>3</sub> )	N	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
C(CH <sub>3</sub> )	CH	N	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
N	CH	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-F-Ph	S	2
N	CH	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Cl-Ph	S	2
N	CH	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2,4-diCl-Ph	S	2
N	CH	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Br-Ph	S	2
N	CH	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2-Cl-4-F-Ph	S	2
N	CH	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	3,4-diCl-Ph	S	2
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-F-Ph	S	2
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Cl-Ph	S	2
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2,4-diCl-Ph	S	2

X <sup>1</sup>	X <sup>2</sup>	X <sup>3</sup>	X <sup>4</sup>	Ar	Y <sup>1</sup>	m
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Br-Ph	S	2
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2-Cl-4-F-Ph	S	2
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	3,4-diCl-Ph	S	2
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-F-Ph	S	1
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Cl-Ph	S	1
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2,4-diCl-Ph	S	1
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Br-Ph	S	1
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2-Cl-4-F-Ph	S	1
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	3,4-diCl-Ph	S	1
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-F-Ph	S	1
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Cl-Ph	S	1
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2,4-diCl-Ph	S	1
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Br-Ph	S	1
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2-Cl-4-F-Ph	S	1
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	3,4-diCl-Ph	S	1
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-F-Ph	S	2
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Cl-Ph	S	2
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2,4-diCl-Ph	S	2
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Br-Ph	S	2
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2-Cl-4-F-Ph	S	2
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	3,4-diCl-Ph	S	2
N	CH	CH	C(CH(OCH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> ))	4-Cl-Ph	S	2
N	CH	CH	C(CH(OCH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> ))	4-Cl-Ph	S	1
CH	N	CH	C(CH(OCH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> ))	4-Cl-Ph	S	1
CH	N	CH	C(CH(OCH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> ))	4-Cl-Ph	S	2
CH	CH	N	C(CH(OCH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> ))	4-Cl-Ph	S	2
CH	CH	N	C(CH(OCH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> ))	4-Cl-Ph	S	1
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	4-Cl-Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	3,4-diCl-Ph	S	2

X <sup>1</sup>	X <sup>2</sup>	X <sup>3</sup>	X <sup>4</sup>	Ar	Y <sup>1</sup>	m
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	4-Br-Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	4-CF <sub>3</sub> -Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	2-Cl-4-F-Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	2-naphthyl	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	2,3-diCl-Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	4-CH <sub>3</sub> -Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	2,4-diCl-Ph	S	2



Ar	Y <sup>1</sup>
5-tetrazolyl	S
2-pyrrolyl	S
1,2,4-triazol-3-yl	S
1,2,3-triazol-4-yl	S
5-imidazolyl	S
4-pyrazolyl	S
5-pyrazolyl	S
(1H,4H)-5-oxo-1,2,4-triazol-3-yl	S
4-isothiazolyl	S
1,2,5-thiadiazol-5-yl	S
1,2,5-oxadiazol-5-yl	S
3-furanyl	S
1,2,3-thiadiazol-4-yl	S
1,2,3-oxadiazol-4-yl	S
4-isoxazolyl	S
3-thienyl	S
4-oxazolyl	S
4-thiazolyl	S
(5H)-2-oxo-5-furanyl	S



Ar	Y <sup>1</sup>
(5H)-2-oxo-4-furanyl	S
1,2,4-oxadiazol-5-yl	S
3-pyridyl	S
2-pyrazinyl	S
5-pyrimidinyl	S
2-indolyl	S
2-benzothienyl	S
2-benzofuranyl	S
4-oxo-benzopyran-2-yl	S
2-quinolinyl	S
2-benzimidazolyl	S
2-benzoxazolyl	S
2-benzothiazolyl	S
1-benzotriazolyl	CH <sub>2</sub> S
thieno[2,3-b]pyridin-2-yl	S

21. (Original) A pharmaceutical composition comprising a compound of Claim 1 and a pharmaceutically acceptable carrier.

22. (Withdrawn by the Examiner) The composition of Claim 21 further comprising a second active ingredient selected from an antihistamine, a leukotriene antagonist and a leukotriene biosynthesis inhibitor.

23. (Withdrawn by the Examiner) A method for the treatment of prostaglandin D<sub>2</sub> mediated diseases which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound of Claim 1.

24. (Withdrawn by the Examiner) A method for the treatment of nasal congestion which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound of Claim 1.

25. (Withdrawn by the Examiner) A method for the treatment of allergic asthma which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound of Claim 1.

26. (Withdrawn by the Examiner) A method for the treatment of allergic rhinitis which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound of Claim 1.

27. (Previously Canceled)

28. (Previously Canceled)

29. (Previously Canceled)

30. (Previously Canceled)